WHAT IS CLAIMED IS:

1. A sheet-supply device for supplying sheets, one by one from a stack of sheets, in a sheet feed direction, the sheet-supply device comprising:

a hopper portion that has an inclined wall for holding the stack of sheets in an inclined position and a lower edge receiving portion capable of receiving lower leading edges of sheets that form the stack of sheets;

a sheet feed mechanism that includes a sheet-supply roller which separates and feeds a topmost sheet from the stack of sheets held by the hopper portion;

a stopper member that is provided to a bottom plate of the hopper portion so that a position of the stopper member can be changed between a protruding position where the stopper member protrudes from an upper surface of the bottom plate and a retracted position where the stopper member retracts below the upper surface of the bottom plate, and applies a resistance to movement of the sheets in the sheet feed direction;

a position change mechanism that changes the position of the stopper member between the protruding position and the retracted position and changes the position of the stopper member from the protruding position to the retracted position at least when a sheet feed operation is performed by the sheet-supply roller; and

a position change control device that controls the up-and-down movement of the stopper member in accordance with a condition of the sheets held by the hopper portion.

2. The sheet-supply device according to claim 1, further comprising a sheet feed operation mechanism that drives the position change mechanism and the sheet-supply roller in synchronization with each other, thereby changing the position of the stopper member to the retracted position via the position change mechanism when the sheet feed operation using the sheet-supply roller starts.

3. The sheet-supply device according to claim 1, further comprising a separating pad that is a part of the lower edge receiving portion of the hopper portion and applies a slide resistance to the movement in the sheet feed direction of the lower edges of the sheets held by the hopper portion, wherein the stopper member includes a pair of stopper members provided at positions away from each other in a sheet width direction.

4. The sheet-supply device according to claim 1, wherein the position change control device controls the up-and-down movement of the stopper member in accordance with the condition of the sheets that is based on a type of the sheets held by the hopper portion.

5. The sheet-supply device according to claim 1, wherein the position change control device controls the up-and-down movement of the stopper member in accordance with the condition of the sheets that is based on an amount of sheets held by the hopper portion.

6. The sheet-supply device according to claim 5, wherein the position change control device determines a time at which the up-an-down movement of the stopper member is performed between an instant when the sheet feed operation starts and an instant when a leading edge of the fed sheet reaches resist rollers disposed in a downstream direction in the sheet feed direction, in accordance with the amount of the sheets held by the hopper portion.

7. The sheet-supply device according to claim 1, wherein the position change control device determines a time at which the up-and-down movement of the stopper member is performed between an instant when the sheet feed operation starts and an instant when a leading edge of the fed sheet reaches resist rollers disposed in a downstream direction in the sheet feed direction, in accordance with the condition of the sheets held by the hopper portion.

8. The sheet-supply device according to claim 4, wherein the position change control device performs a first control of the sheet feed operation, in which the stopper member is changed to the protruding position from the retracted position by the position change mechanism when a leading edge of the fed sheet passes the stopper member, and a second control of the sheet feed operation, in which the stopper member is maintained at the retracted position until the leading edge of the sheet reaches resist rollers and the retracted position of the stopper member is changed to the protruding position from the retracted position by the position change mechanism when the leading edge of the sheet reaches the resist rollers.

9. The sheet-supply device according to claim 8, wherein the position change control device performs the sheet feed operation by the first control when the sheets to be fed are determined to have a high frictional coefficient between adjacent ones of the sheets, and performs the sheet feed operation by the second control when the sheets to be fed are determined to have a low frictional coefficient between the adjacent ones of the sheets.

10. The sheet-supply device according to claim 9, wherein the position change control device performs the sheet feed operation by the first control when the sheets to be fed are matte sheets for ink-jet printer.

11. The sheet-supply device according to claim 1, further comprising:

an urging device that contacts the topmost sheet in the stack of sheets held by the hopper portion and exerts an urging force toward the inclined wall of the hopper portion; and

a sheet position control device that moves the stopper member up and down several times via the position change mechanism at a time between after the sheet feed operation is completed and before a next sheet feed operation is performed, while the sheets held by the hopper portion are urged by the urging device.

12. The sheet-supply device according to claim 11, wherein the urging device includes the sheet-supply roller and an urging member that makes the sheet-supply roller contact the topmost sheet in the stack of sheets held by the hopper portion and urges the sheets such that the sheet-supply roller and the inclined wall sandwich the sheets therebetween.

13. The sheet-supply device according to claim 11, wherein the position change control mechanism determines a number of times the stopper member moves up and down, in accordance with the condition of the sheets held by the hopper portion.

14. The sheet-supply device according to claim 1, wherein the stopper member has a regulating surface having a sawtoothed surface when viewed from side.

15. The sheet-supply device according to claim 1, wherein the position change control device controls the up-and-down movement of the stopper member in accordance with the condition of the sheets that is based on both a type and an amount of the sheets held by the hopper portion.

16. The sheet-supply device according to claim 1, wherein the hopper portion includes a hopper body having first portions, and the inclined wall has second portions that engage with the first portions to integrally connect the hopper portion and the inclined wall.

17. A sheet supply method using a sheet-supply device that includes a hopper portion that has an inclined wall for holding a stack of sheets in an inclined position and a lower edge receiving portion capable of receiving lower leading edges of the sheets that form the stack of sheets, a sheet feed mechanism that includes a sheet-supply roller which separates and feeds a topmost sheet from the stack of sheets held by the hopper portion, a stopper member that is provided to a bottom plate of the hopper portion so that a position of the stopper member can be changed between a protruding position where the stopper member protrudes from an upper surface of the bottom plate and a retracted position where the stopper member retracts below the upper surface of the bottom plate, and applies a resistance to movement of the sheets in a sheet feed direction, and a position change mechanism that

changes the position of the stopper member between the protruding position and the retracted position and changes the position of the stopper member from the protruding position to the retracted position at least when a sheet feed operation is performed by the sheet-supply roller, the sheet-supply method comprising:

changing the protruding position of the stopper member to the retracted position from the protruding position by the position change mechanism;

supplying the topmost sheet from the stack of sheets held by the hopper portion by driving the sheet-supply roller of the sheet feed mechanism; and

changing the position of the stopper member to the protruding position from the retracted position when a leading edge of the fed sheet passes the stopper member.

18. A sheet supply method using a sheet-supply device that includes a hopper portion that has an inclined wall for holding a stack of sheets in an inclined position and a lower edge receiving portion capable of receiving lower leading edges of the sheets that forms the stack of sheets, a sheet feed mechanism that includes a sheet-supply roller which separates and feeds a topmost sheet from the stack of sheets held by the hopper portion, a stopper member that is provided to a bottom plate of the hopper portion so that a position of the stopper member can be changed between a protruding position where the stopper member protrudes from an upper surface of the bottom plate and a retracted position where the stopper member retracts below the upper surface of the bottom plate, and applies a resistance to movement of the sheets in a sheet feed direction, and a position change mechanism that changes the position of the stopper member between the protruding position and the retracted position and changes the position of the stopper member from the protruding position to the retracted position at least when a sheet feed operation is performed by the sheet-supply roller, the sheet-supply method comprising:

changing the protruding position of the stopper member to the retracted position from the protruding position by the position change mechanism;

supplying the topmost sheet from the stack of sheets held by the hopper portion by driving the sheet-supply roller of the sheet feed mechanism; and

moving the stopper member up and down several times via the position change mechanism at a time between after the sheet feed operation is completed and before a next sheet feed operation is performed.